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## INTEGRATED ELECTROSTATIC SLIDER FLY HEIGHT CONTROL

### ABSTRACT OF THE DISCLOSURE

A disc drive that includes a slider with a field emission sensor that senses fly height. The sensor has an electrode tip disposed on the slider. The electrode tip faces a media surface across a gap. The sensor conducts a tunneling current through the gap and provides an output representing the length of the gap. An actuator adjusts the fly height spacing. A feedback circuit provides an actuator electrical input as a feedback function of the sensor output to control the fly height spacing.

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